

# All Star Mechanical Pressure and Vacuum Relief Valve

MODEL RVA-01 to 3000 mmaq / 290 mbar / 118" H<sub>2</sub>O / 4.25 psi  
MODEL RVA-02 3000 to 6000 mmaq / 580 mbar / 235 "H<sub>2</sub>O / 8.5 psi

## 1. Purpose

A relief valve is used to prevent overloading of the blower motor and air system should the blower develop air pressure or vacuum greater than the air system is capable of distributing.

Thus, the relief valve helps to eliminate possible overloading of the blower and/or the motor.

It is recommended to install a relief valve in all air systems to prevent possible damage to the motor, associated equipment or personnel.

## 2. Function

The All Star valve can be used for either vacuum or pressure air systems by merely installing it correctly. Arrows on the valve indicate which direction the valve should be installed for the desired service. If the arrows are not legible, refer to this page for installation instructions.

## 3. Installation, Fig 2a, Pressure Installation Fig 2b, Vacuum Installation

Thread the valve tightly into a threaded T-style pipe installed in the air system. Insure the valve is treaded tightly. Caution should be used to insure the valve is not threaded too tightly, in which case either the T-pipe or the valve may crack or fail.

## 4. Pressure and Vacuum Setting, Fig 3

The valve is not factory pre-set and it is necessary to set the valve for your required operating conditions.

This is accomplished by turning an adjusting screw located within the valve. The screw is visible from outside of the valve.

To increase the pressure setting, turn the adjusting screw clockwise. To decrease the pressure setting, turn the adjusting screw counter clockwise.

An initial setting of 90% of the air system design rating should be used. Should nuisance tripping occur, then this value can be increased. Under no circumstances should the valve setting be greater than the air system design rating.

## 5. CAUTION

Once the valve has been set, start the blower, run the air system at design conditions and check the motor amperage with an ammeter to insure motor amperage is less than the amperage rating as shown on the motor nameplate.

If the motor amperage is too high, inspect the air system piping to insure there is no blockage; check the valve to insure the adjusting screw is installed and set properly and has not loosened; check the valve to insure it was installed in the proper direction.



Fig 1 Typical Pressure Installation with valve installed on discharge port of blower.

